Naoko Morita

from Japan

The kindergarten I work at

The aims of our education are:

- Honest kids that are healthy and positive
- Active kids who play positively and with curiosity
- Kind kids who help each other out
- Kids who think for themselves before acting

Rich natural environment

Kids can reach their full potential

Numerous facilities and lots of equipment

Let's make a kite!

Takoage (Flying a Kite)

Creatures that fly skillfully

<Monarch Butterfly>

<Seagull>

How can they fly so well?

(1) Symmetry!

<Monarch Butterfly>

The left and the right halves are identical!

<Arctic Tern>

Can fly over a long distance by fixing their wings!

(2) Center of gravity

<Pelican>

When a long-necked pelican flies...

...it changes its center of gravity by moving its head back!

☆Key points for making a kite that flies well☆

（1） Symmetry

（2） Balance

Now let me explain how...

Let’s have a go!

These can fly too!?

You can also do this!

Flying without a string

<Alsomitra>

Length: approx. 15cm

Weight: approx 0.2g

The key is getting the weight just right!

Thank you!

Naoko Morita

[Making a Kite from Styrofoam Paper] – Script (Naoko Morita)

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- Hello, my name is Naoko Morita from Japan.
- I work at Musashino Kindergarten.
- This kindergarten is located in Saitama, a suburb of Tokyo, and to start I'd like to give you an introduction to it.

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- This is my kindergarten.
- It is commonly known in the region as the "Kindergarten Castle".

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- The aims of our education are:
  - Honest kids that are healthy and positive
  - Active kids who play positively and with curiosity
  - Kind kids who help each other out
  - Kids who think for themselves before acting
- We want to raise people who will be able to perform alongside other people from around the world in the future.

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- The kindergarten has a rich natural environment in a location with four distinct seasons.

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- It is a place where children can feel at home and can reach their full potential.

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- There are numerous facilities including a spacious school building, a yard, and an indoor pool.
- Because the kindergarten is associated with the junior college, we work together on things such as educational training activities in collaboration with universities and colleges.

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- Moving on from the introduction to my kindergarten, today I'd like make a kite from styrofoam paper with you all.
- The aims of making the kite are:
  - To experience the fun of making and flying a kite
  - To gain an interest in things surrounding us, and make discoveries, notice things, and understand how they work.
- And by working together as parent and child:
  - To deepen the bond between parent and child through playing and learning
  - For parents and children to have fun with other participants
- In other words, it is a great venue for improved communication between parents and children.

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- In Japan, there is an age-old tradition whereby people fly kites on New Year's.
- This is called "takoage" in Japanese and is a New Year's custom.
- In order to be able to fly this kite well, first I'd like to take a look at creatures that can skillfully fly through the air.

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- What type of creatures can fly well through the air?
- Butterflies and birds for example
- Here you can see a monarch butterfly and a seagull

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- Why can these things fly so well?
- Of course they have wings, but there are two secrets to the ability to fly well.

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- Firstly, the shape of the left and right side of the body should be the same; that is to say they should be symmetric.
- The left and right wings should be the same size and shape.

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- Birds have a symmetric shape too.
- This is an "Arctic Tern".
- It can hold its wings still and glide through the air using the power of the wind without flapping about.
- It can fly very long distances without tiring.
- The Arctic Tern is a typical long distance-flying bird and flies between the north and south poles over the course of a year.
- Let's have a look at how it would fly if it wasn't symmetrically shaped. (Demonstration)

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- The second secret to flying well is a balanced center of gravity.
- What does a pelican, which as you can see in this photo has a long neck and heavy head, do to fly?

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- To fly, the pelican shortens its neck to put its center of gravity in the right place.
- By shortening its neck the position of its center of gravity changes and it can fly well.

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- These also hold true for kites.
- To make a kite that flies well:

1. the shape must be symmetric, and
2. the position of the center of gravity must be just right in order to achieve balance.

・ Please pay attention to these points when making your kite.
・ Right, it looks like you are all raring to go, so let me explain how to make this kite.

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1. In order to make the kite symmetric, we lightly fold the styrene paper in half and put a crease in it about out a third of the way from the top.
2. Somewhere on the fold line will be the center of gravity.
   Use tape to attach string to the point where balance can be achieved.
3. Finally we will put plastic streamers along the bottom edge so that we can fly it successfully.
   By doing this, balance is achieved and it doesn't spin or go from side to side.
4. Finally, draw a picture on your kite to finish it!

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・ This is a video of fun with styrofoam paper kites that we made at my kindergarten.
・ While there are kites that satisfy both of the conditions there are also those that don't, so let's take a closer look at them.
・ Some kites don't fly well because their center of gravity is off center.
・ On the other hand, the kite made by a child who understands the key points is flying superbly even without running.
・ OK, let's have a go at actually making one!

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(Images of making a kite)

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・ If the kite is symmetric and you have grasped the key point about the center of gravity, then even a kite in the shape of that shown in the photo will also fly well.

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・ You can also make a three-level kite and a lively kite with lots of streamers.

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・ In the natural world there are many things that are balanced well and fly even though they don't have string or streamers like a kite.
・ This seed is called "Alsomitra".

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- It is a cucurbitaceous crane plant that grows in tropical jungles such as those in Indonesia.
- This is the species and its name means “forest (also) hat (mitra)”.
- The part of this species that sprouts turns into thin wings, and can glide through the air much like a glider for up to a kilometer.
- Let’s make one with this as a reference.

1. Make the styrene paper symmetric.
2. We’ll use a thinly sliced cork as a weight.

- If you adjust the center of gravity you can make something a bit like a glider.
- Note that if you don’t adjust the center of gravity so that it’s just right then it won’t fly very well.

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- It’s almost time for us to finish.
- Have you enjoyed making your kite?
- When we did this at my kindergarten, there was a big cheer when the kites went up.
- We were able to see the kids having fun over and over, and repeatedly going through trial and error until they were satisfied.
- The kids picked up and learned a lot through the experience of failure and success.
- This is a wonderful activity that children and parents can enjoy together.
- I really hope that you will have fun with kids at your kindergarten or school.

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- Thank you for helping me have a lovely time.